University of Tennessee, Knoxville
TRACE: Tennessee Research and Creative Exchange

BESS Newsletter

Biosystems Engineering and Soil Science Publications and Other Works

5-4-2009

BESS 5/4/09

Department of Biosystems Engineering and Soil Sciences

Follow this and additional works at: https://trace.tennessee.edu/utk_BESS

Recommended Citation

Department of Biosystems Engineering and Soil Sciences, "BESS 5/4/09" (2009). *BESS Newsletter.*
https://trace.tennessee.edu/utk_BESS/16

This Newsletter is brought to you for free and open access by the Biosystems Engineering and Soil Science Publications and Other Works at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in BESS Newsletter by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.

BESS NEWS

BIOSYSTEMS * ENGINEERING * SOIL SCIENCE

Vol. 2 No. 5
May 4, 2009

2506 EJ. Chapman Drive
Knoxville TN 37996-4531
865.974.7266
bess@utk.edu
http://bioengr.ag.utk.edu

From the Department Head:

As we wrap up the 2008-2009 academic year, we have much to celebrate! We have 13 students receiving BS degrees in Biosystems Engineering or Environmental and Soil Science this spring semester and two more this summer. We congratulate these graduates as they enter the professional world, or in several cases continue to graduate school.
(*continued here*)

CONGRATULATIONS!

Dr. Joanne Logan has received the Environmental Leadership Award for faculty for her commitment to advancing sustainability at UT Knoxville. Full story link: http://environment.utk.edu/news/leadership_winners.html

2009 Distinguished Alumnus

The Distinguished Alumnus and Guest Speaker for the 2009 BESS Awards Banquet was **J. A. "TONY" WILLIAMS**. Tony received his BS in Agricultural Mechanics in 1988, and his MS in Agricultural Engineering Technology in 1991, both from UT. He is currently VP of Operations for Customs Foods here in Knoxville. He and his wife Deanna have three daughters - Claire, Maggie, and Ella.

After watching the department honor students and staff with awards for jobs well done, Tony shared a few thoughts with us. He was pleased to see that the department remains a good place for both friendship and learning. He told us about lessons he had learned, both easy and hard, at school and at home. He described the excitement you can generate if you don't heed the instructions, and forget to put a tractor into 4 wheel drive when the bucket on the front has a load in it. It is especially exciting if the load is an elderly neighbor, the tractor is headed downhill, and it doesn't have any front brakes.

He reminisced about primitive computers and data loggers that were his responsibility as a student, the number of times he's run a piece of equipment either into or through a wall, and a former Professor with an unfortunate propensity for injuries caused by lack of attention. I didn't realize being an engineer could be so entertaining.

Tony spoke also of more important lessons that he has learned: Lesson 1) Time moves fast, so pay attention to the important things while you have them - especially your family. Lesson 2) Always tell the truth. For one thing, it is easier to remember what you said, but more significantly, you can sleep better. Lesson 3) Perhaps most notably, follow the Golden Rule - "Do unto others as you would have them do unto you." Tony has instructed everyone that he has trained to follow this rule, and he has also followed it to his best ability, with no regrets.

Tony's words can be summed up as: Be kind to one another, read the instructions, and enjoy life!

----*Margaret Taylor*

CLICK BELOW
FOR IMPORTANT NEWS ON:

BESS

Students

CASNR

AgResearch

Extension

UTIA

Please submit items to Darla O'Neill
doneill1@utk.edu
BESS NEWS is issued on 1st & 3rd Mondays of each month.
Archived issues post to our departmental website.
To subscribe (or unsubscribe), email doneill1@utk.edu

BE THE BESS
BIOSYSTEMS * ENGINEERING * SOIL SCIENCE
YOU CAN BE

THE UNIVERSITY of TENNESSEE INSTITUTE of AGRICULTURE

BESS NEWS

Return to Front page

2009 AWARDS BANQUET (photos continued on following pages)

Marlay A. Sharp Award - Freshman Engineering
John P. Petty

Top Underclass Scholar – ESS
Lauren T. Nixon

Top Sophomore Scholar – BsE
Joseph E. Freeman

Top Upperclass Scholar – ESS
Jayme L. Green

Top Upperclass Scholar – BsE
John P. Kruckeberg

Undergraduate Student with Professional Promise – BsE
William K. Rutemeyer

Undergraduate Student with Professional Promise – ESS
Seth B. Brown

Graduate Student with Professional Promise – BsE/T
Jason C. Head

Graduate Student with Professional Promise -ESS
Katherine E. Sides

Return to Front page

BESS NEWS

BESS Outstanding Service – Support Staff
Joe E. Sarten

BESS Outstanding Service – Faculty Award
Joanne Logan

Outstanding Teaching – ESS
Mark Radosevich

Outstanding Teaching Award – BsE/T
Stacy K. Worley (not present)

McDow Faculty Excellence Award
Forbes R. Walker

BESS Distinguished Alumnus Award
Tony Williams

2009 Golden Ostrich Award
Neal Eash and Forbes Walker

The recipients are both very active with respect to research, outreach, and service learning on an international basis. In late March, they were working in South Africa, and on their return flight home the plane leaving Johannesburg struck a flock of birds on takeoff. The plane had to return to the airport, and while it landed safely, they had to wait for another flight out -- two days later! Of course, upon their return on April 1st we all heard the story of their close call, but it seems that it was also embellished a bit as the ringleader related a convincing story of their flight striking a flock of *ostriches* on takeoff. Because they are both well known on campus, the story was widely circulated, and although we should have known better he told his story so convincingly that he was able to "fool" more than one among us. Because, while the ostrich is a native of Africa, and it can run very fast, it cannot fly at all!

In recognition of the year's best and most widely circulated April Fool's joke, we award the "Golden Ostrich" Award to Neal Eash and his accomplice Forbes Walker.

BESS NEWS

Return to Front page

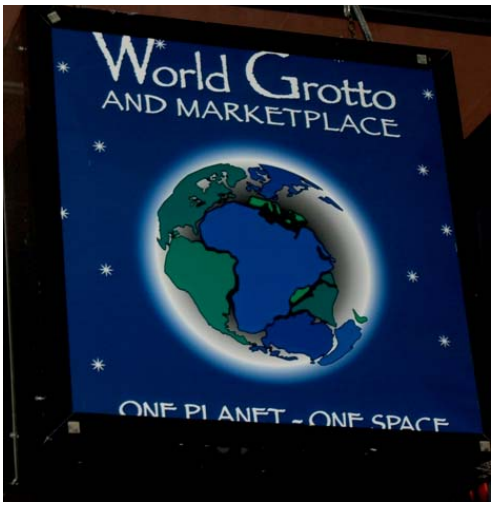
We'd like to thank Robert Freeland for once again serving as our very capable photographer!

STUDENT NEWS

Return to Front Page

GROTTOMALA!!

Once again, BESS faculty and students have been busy helping with Engineers Without Borders projects. The latest endeavor was “Grottomala”, a fundraising event at World Grotto which raised over $1,000 in support of LaFortuna, Guatemala, for on-going construction projects for smokeless stove demonstrations, raised beds for vegetable production and spring protection for a 30 family community water source. Here are a few photos from the event:



CASNR NEWS

Return to Front Page

VolExpress Fee Statements

Vol Express Fee Statement - often called the tuition bill - is now being sent to students via email to their UTK email address from the Bursar's Office. Faculty are asked to remind students that the UTK email is the official means of communicating to students. This is a **critical change**, especially for continuing students - both graduate and undergraduate. Statements will no longer be sent via US Postal Service.

Reminders:

Fulbright Scholar Opportunities in Engineering

From March to August 1, 2009, U.S. faculty and professionals are invited to apply for *Fulbright scholar grants at www.cies.org. Complimentary subscriptions are also available for *The Global Citizen*, the Fulbright Scholar Program's new, monthly e-newsletter. Sign up at www.cies.org.
**The Fulbright Program, sponsored by the U.S. Department of State's Bureau of Educational and Cultural Affairs, is the U.S. government's flagship international exchange program and is supported by the people of the United States and partner countries around the world. Since 1946, the Fulbright Program has provided more than 286,000 participants from over 155 countries with the opportunity to study, teach and conduct research, to exchange ideas and contribute to finding solutions to shared international concerns. For more information, visit* http://fulbright.state.gov/.

CSREES Announces the Availability of Grant Funds and Requests Applications for the Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship (NNF) Grants Program

Among other targeted areas is: Agricultural Systems Engineering - specifically biobased products, bioenergy and food products engineering. **Closing Date**: May 8, 2009, **Proposed Award Date**: September 15, 2009
Funding Opportunity Number: USDA-CSREES-HEP-002116, **Program Code**: KK, **Funds Available**: $3.6 million
CFDA Number: 10.210 ONLY ELECTRONIC APPLICATIONS THROUGH WWW.GRANTS.GOV ARE ACCEPTABLE.
Grants.gov Synopsis:
http://www.grants.gov/search/search.do;jsessionid=7LJ8J68B0p3Y8p20XQWCzx7HRLyL3bMJTbXgTGwpPVv8JDqQG6QJ!1057178580?oppId=46011&flag2006=false&mode=VIEW
Grants.gov Application Package:
http://apply07.grants.gov/apply/GetGrantFromFedgrants;jsessionid=ZGTvJ68GS6zdQpzcLQ8fTTbHQdsVwpJ1hbWX1kNJMySjBQTkn27J!1057178580?opportunity=USDA-CSREES-HEP-002116&agencycode=USDA-CSREE
Soliciting applications for:
(1) Fellowships to train students for Master of Science and doctoral degrees in food and agricultural sciences in the Targeted Expertise Shortage Areas (TESA), **and**
(2) for Special International Study or Thesis/Dissertation Research Travel Allowances (IRTA) **for eligible USDA**
More information about the NNF Program will be found at **http://www.csrees.usda.gov/funding/nnf/nnf.htm.**
See Program Brochure on the Internet at http://www.csrees.usda.gov/about/offices/pdfs/natl_needs.pdf..
The RFA will be found at http://www.csrees.usda.gov/fo/graduateandpostgraduatefellowshipsserd.html

IES Abroad Faculty Development Seminar in Quito, Ecuador

March 17 - 25, 2010 - Seminar Dates
March 25 - 28, 2010 - Optional Post-Seminar Trip to the Galápagos (additional fee applies)
Nomination Deadline: September 15, 2009
Overview: The seminar will include a series of workshops and lectures. Topics will include: **Tropical Forests, Tropical Mountains, Climactic Change in the Tropics**
Possible Participants: Seminar nominees must be full-time professors at IES Abroad Member or Associate Member institutions. Nominees must be able to demonstrate that they are actively engaged in teaching and/or research in subjects relating to these fields: Environmental Studies, Biology, Ecology. Candidates' statements should address how the seminar will potentially impact their teaching. Faculty from all ranks and related disciplines are encouraged to apply.
Academic Research or Performance Proposals: Participants are invited to submit a proposal to present academic research or to give a lecture.
Cost Details: IES Abroad shares most costs with participants or can provide an invoice to institutions that prefer to cover all costs associated with the seminar (approximately $3,000, not including the trip to the Galápagos Islands).
Participants from IES Abroad member institutions [NOTE: UT is a member] will be asked to contribute $800. The contribution from participants from Associate Member institutions will be $1,100. IES Abroad will apply this cost to trans-Atlantic transportation and other seminar expenses. IES Abroad will cover most other costs including hotel, group meals, and travel to the Amazon. IES Abroad will coordinate travel arrangements, including flights. Participants are responsible for incidental expenses and meals not taken with the group. Participants will be selected in the order in which their completed application is received. Please indicate on your application if you are interested in attending the optional Galápagos trip. Nomination and selection process are available on the **IES Abroad website**. For further information, please visit the **Get Involved** section of our website or contact IES Abroad via email at **FacultyDevelopment@IESabroad.org**.

Continued Next Page

THE CHRONICLE OF HIGHER EDUCATION
http://chronicle.com/weekly/v55/i34/34a05601.htm May 1, 2009

We Must Teach Students to Fail Well

By LEAH BLATT GLASSER

A poster titled "Freshman Counseling" hangs on the wall in the least conspicuous corner of my office. I inherited it from my predecessor as she gleefully departed. The image, in dungeon-and dragon style, is daunting.

A tall guard, perhaps the executioner himself, stands masked and towering above a meek first year student. The guard holds the end of a long chain around the student's neck; on the other side of the desk sits the homely and obese dean in hooded medieval garb, hunched over, with feather pen in hand, skeptically awaiting the student's explanation. A book entitled *Career Paths* leans against the leg of the Gothic desk.

I recall one semester when that poster, merely a source of amusement for me on my busiest days, took on new meaning. On the first day of classes, I sat in my office on the third floor of the imposing ivy-covered administrative building at Mount Holyoke College, awaiting my first "probationer." The student — let us call her Emily — entered with her head hanging low. Her eyes avoided mine quite deliberately as she gripped the letter outlining her poor performance and the terms of academic probation.

Emily was already shrugging her shoulders and expressing despair, shame, and apology, even before reaching the seat on the other side of my desk. She glanced over at the poster. Ironically, the ominous image served to put her at ease, and we had a good laugh for a moment. "I feel just like that kid," she said. What she learned over the course of the next six months was how to get rid of the executioner and the chain around her neck, the one she had conjured up in her imagination as a result of her failure.

In my role as an academic dean, I frequently meet with students on probation who have not yet learned how to fail and are consequently paralyzed academically. One of the most pivotal skills for a student who wishes to succeed in the academic arena is the ability to fail well. "Good failing" requires the strength to make use of a self-generated mess. As Anne Lamott explains in *Bird by Bird,* "perfectionism is the voice of the oppressor, the enemy of the people. It will keep you cramped and insane your whole life." She urges her writers to "go ahead and make big scrawls and mistakes. Use up lots of paper. Perfectionism is a mean, frozen form of idealism, while messes are the artist's true friend. ... We need to make messes in order to find out who we are and why we are here."

Of course after the mess, the learning can begin, and that is precisely what the students whom I work with discover. It is a lesson more valuable than the lessons learned in the courses in which they will ultimately earn A's. The energy, even courage, to rethink a failed piece of work, write, rewrite, inquire, and respond to the comments and questions of a critical reader is crucial for anyone aiming to excel in college. Moreover, the shame and embarrassment of producing a less than perfect paper or exam becomes a handy shield against the hard work it takes to build on failure.

Unfortunately, more often than not, students placed on academic probation because of a poor performance in their first semester of college resisted turning in an imperfect paper, completing a flawed exam, or appearing in subsequent classes because they were too paralyzed by criticism to prepare or move forward. Their self-defeating actions stem from fear of criticism. In short, they are bad at failing.

How can we turn such students around? To be sure, no matter how much we advise, they may continue to perform poorly in a discipline that doesn't tap their interests or abilities. But the first year of college is a time to discover strengths and weaknesses. The role of a good adviser or dean is to engage the student in dialogue, to encourage her to examine the causes of failure, to give her room for honest self-assessment, and then to guide her toward taking responsibility for improvement.

Simple questions work: What do you think went wrong? What will you do differently? Did you meet with the professor or only communicate through e-mail messages? Did you go to the writing center? Seek the help of the reference librarian? The goal is to help students listen to themselves and make the needed connections so that their failure fuels success.

A good example of "bad failing" is the pattern Emily confessed as she sat before me in shame during our first meeting. In her first semester, Emily said, she had stared in shock at the grades for her papers and exams in each course, and subsequently internalized the low grades (not yet F's) as symbols of her inadequacies rather than as opportunities for growth. While on probation, Emily learned that criticism is the best gift college can provide. Failure can and should be the key impetus for success. A quick review of her experience will serve to demonstrate my point. I asked Emily which of the courses from her first semester was her favorite. She selected the course for which she received a C-minus. That impressed me. "Great Books," a first-year writing-intensive seminar, opened Emily's eyes to a range of interpretations and analyses of classical texts, and challenged her to read and write more often than she ever had in high school. She loved the reading but dreaded the writing. When her first paper came back with exclamation points and question marks in the margins, and the words "we need to meet" at the top of the first page, Emily hid. Her professor continued to urge her to come in, but that was the last thing she could imagine doing. To her mind, he was the equivalent of the judgmental figure behind the big desk in my poster, and only some guard pulling her along with a chain could have gotten her to that office. Avoiding the professor was her way of erasing the reality of those marked-up papers. It was as if she had convinced herself that if she ignored the comments on her papers, somehow they weren't really there. So she dutifully continued to hand in her assignments, and each one was worse than the one that came before. Her final grade seemed to her something tragic from which she might never recover. Literature was, after all, the field in which she hoped to major. A decision had to be made now about whether or not to continue into the second semester of the seminar with the same teacher. "How will you feel if you drop it?" I asked. "Will you miss the discussions and the readings? Were you excited about what you were learning even though the grades were low? Tell me about what you learned."

Emily went on for 30 minutes, describing details about what intrigued her and how these texts related to the books she had just picked up for her second semester courses. We determined together that Emily would stay in the course, but that she would no longer be invisible. She would make use of her failure as a vehicle for success. She agreed to meet with her professor on a regular basis, and learned what it meant to visit a professor during office hours. This became a new strategy for all of her courses, and the transformation yielded remarkable results.

At the end of the semester, the two of us chatted about what had happened to Emily, or rather, what she had made happen, and we glanced up at the gothic poster on my corner wall. "You know," she said, "the best thing about probation is getting rid of the chains that hold you back."

Leah Blatt Glasser is dean of first-year studies and a lecturer in English at Mount Holyoke College. She is the author of In a Closet Hidden: The Life and Work of Mary E. Wilkins Freeman *(University of Massachusetts Press, 1996).*

http://chronicle.com Section: Commentary Volume 55, Issue 34, Page A56 Copyright © 2009 by The Chronicle of Higher Education

CONTINUED NEXT PAGE

Return to Front Page

TOMORROW'S PROFESSOR(sm) eMAIL NEWSLETTER
http://cgi.stanford.edu/~dept-ctl/cgi-bin/tomprof/postings.php
Sponsored by Stanford Center for Teaching and Learning http://ctl.stanford.edu
Posting comments http://amps-tools.mit.edu/tomprofblog

Folks:

The posting below looks at the impact of communication styles on male and female students in engineering team projects although the results have implications for all gender-mixed work groups .

The article is by Joanna Wolfe and Elizabeth Powell and is from theJournal of Engineering Education Selects "Research in Practice" section of ASEE Prism, March 2009. © Copyright 2009, American Society for Engineering Education, reprinted with permission, 1818 N Street, N.W., Suite 600, Washington, DC 20036-2479, Web: www.asee.org Rick Reis, reis@stanford.edu

He Said, She Said: Gender-Typical Speech Can Sour Teamwork

A central question in engineering education is why women, despite comparatively good grades, leave engineering programs at higher rates than men. Team projects are often proposed as a solution to this attrition problem on the assumption that women will respond positively to the social interaction and cooperation that such projects promote. Unfortunately, there is some reason to suspect that team projects might accelerate rather than halt attrition: Women frequently report negative team experiences that make them question their place in the discipline.

While previous research has looked at some of the major problems women encounter on teams, our study focuses on perceptions of small, everyday exchanges in order to understand how basic assumptions about what is considered "normal" influence women's team experiences. We chose to focus on everyday exchanges because we believe that individuals may have more opportunity and ability to influence small-scale interactions than they do larger and more visible expressions of prejudice. If women could make small-scale changes to their daily interactions, they may be in a better position to confront larger systemic biases in engineering culture.

We surveyed 522 undergraduates, both in engineering and other disciplines, about their perceptions of six short transcripts showing student team interactions. Each transcript showed a member of a team complaining about some minor aspect of the project or class. We focused on complaints because these are common interactions, open to interpretation, and in our culture, often associated with women. Half of the transcripts showed complaints that exhibit masculine communication styles (e.g., self-promotion, direct criticism), and half showed more feminine styles (e.g., self-belittlement, indirect criticism). In addition, we created two versions of the survey in which the genders in the transcripts were flipped: Thus, half of the surveys used the name "John" with the first transcript, while the other half used "Jessica." This manipulation allowed us to see if the gender of the speaker rather than the actual words spoken influenced respondents' perceptions.

Our findings show that engineering males were more likely than other groups to draw negative conclusions about speakers who engaged in self-belittlement by admitting to difficulties or mistakes - particularly with technological issues. These men were more likely than others to perceive such speakers as incapable, whiny, and insecure. This impatience with speakers who admitted vulnerabilities extended to cases in which the self-belittlement appeared to be strategic - such as conceding one's own weaknesses in order to help a teammate "save face" or using an "I-statement" to soften criticism. This trend was most pronounced among students majoring in mechanical and computer engineering and least present in bioengineering and industrial engineering, the latter two being disciplines with comparatively high levels of female enrollment.

The good news in our findings is that while male engineering students were less tolerant than others of female-typical speech styles, they were just as intolerant when the speaker was male as when the speaker was female. Changing the gender of a name associated with a particular speech act did not influence how it was perceived. Thus, this study suggests that women have
some control over perceptions: Something as simple as curbing tendencies to admit weaknesses can benefit them.

We also found that while engineering men stood out in their perceptions of certain female-typical behavior, other groups found the more male-typical behavior troublesome. Across the board, survey respondents seemed most bothered by speech acts that showed aggressive self-promotion.

Based on this research, engineering educators might coach female students to avoid self-belittling discourse and teach all students to avoid aggressive displays of self-promotion. Such coaching might not only help women and other "at risk" groups fit into an engineering community but might also improve the interpersonal skills of all engineering students.

Joanna Wolfe is an associate professor of English at the University of Louisville. Elizabeth Powell is assistant professor of English at the University of Tennessee at Martin. This article is adapted from "Biases in interpersonal communication: How engineering students perceive gender-typical speech acts in teamwork" in the January 2008 Journal of Engineering Education.

AgResearch NEWS

Return to Front Page

FUNDING OPPORTUNITIES:

Southern SARE Research and Education Pre-Proposals and Grant Program Changes

Southern SARE's Research and Education Grants Program introduced changes this year to help applicants focus on whole systems research.
Starting with the current Research and Education Call For Pre-Proposals, applicants must propose research that fits one of three grant categories:
• Production research—Focused on actual production methods, this kind of research has made up the bulk of SARE's project portfolio in the past and has developed techniques that have become common tools for farmers.
• Postharvest/food systems research—These projects examine what happens past the farm gate such as in the markets, distribution systems and policy making. This category can serve as a funding path for social science researchers to also make a difference in our farm and food systems.
• A combination of production and postharvest/food systems research—
The ultimate in systems research would connect what goes on in the ground with everything that happens after a crop is harvested, including adding value, marketing, infrastructure for processing and transportation, as well as policy making.
Research and Education grants award up to $300,000 for up to 3 years of project activities.
Applications are due June 1. Obtain CFP at http://www.southernsare.uga.edu/callpage.htm
For researchers not yet prepared to submit a SSARE systems research pre-proposal, SSARE will release two additional Research and Education (R&E) requests for proposals with submissions due later in the year:
R&E Planning Grants and R&E Preliminary Research Grants.
• Research and Education Planning Grants bring together interdisciplinary, multi-institutional teams to define a project scope, establish goals and objectives, perform literature reviews across disciplines and do other tasks necessary for developing a systems research preproposal. These grants will award up to $20,000 for one year's planning activities. Pre-proposals will be not required. Details at http://www.southernsare.uga.edu/callpage.htm
• Research and Education Preliminary Grants to conduct necessary research that would feed into the interdisciplinary team's objectives.
It is likely that such a missing link would be discovered during the literature review of a Research and Education Planning Project. These grants will award up to $50,000 for up to 2 years of project activities. Pre-proposals will be not required. Details at http://www.southernsare.uga.edu/callpage.htm
This announcement serves to alert potential applicants of the changes and additional grant opportunities. Specific details of each grant will be in the respective calls for proposals.
To find out how these changes fit into Southern SARE's overall funding strategy for the future see the document Bringing Systems Research Into Focus at http://www.southernsare.uga.edu/pdf_files/REchanges.pdf

New Water Law Reading Room

Water is at the heart of agriculture. Without water, crops and livestock would not be able to survive. Water used in agricultural production can come from surface waters, such as rivers, lakes, streams, and ponds, or from groundwater, such as an aquifer. The allocation of this important resource is left up to each state, with very little federal intervention. Each state has its own regulatory system to allocate both the surface waters and the groundwater in the state.
Many important legal issues are presented by the use of water in agriculture. The new Water Law Reading Room http://nationalaglawcenter.org/readingrooms/waterlaw/ deals with issues such as allocation, irrigation, and other problems common to agriculture's use of water. The room contains specific information related to the interplay between water and agriculture and includes a comprehensive case law index, Center publications, an overview article, a federal statute compilation, and a compilation of each state's water laws and regulations. The room also contains valuable links to federal agencies, a listing of states' water offices, water organizations, and other resources.
The Center thanks Professor Jesse Richardson, Associate Professor of Urban Affairs and Planning and Urban Affairs and Planning Coordinator at the Virginia Tech University, for his careful review of drafts of the reading room and for his insights and comments that insured the reading room would be the best it could be.

More News Next Page

Return to Front Page

REMINDERS:

Southern SARE invites Professional Development Pre-proposals

The Southern Region Sustainable Agriculture Research and Education (SARE) Professional Development Program is requesting pre-proposals for projects of one to two year(s) duration that provide training in sustainable agriculture for agricultural professionals and educators who serve farmers and other interested people in USDA's southern region. Obtain the call for pre□proposals at http://www.southernsare.org. Submission deadline is June 5, 2009. Awards will be made in February 2010. There is no funding cap for projects. To fund a broad portfolio of projects, priority will be given to those in the range of $50,000 to $100,000.
SARE is an inclusive program and encourages pre□proposals from land grant and non-land grant universities, colleges, USDA agencies, community-based organizations, and non-governmental organizations. The Southern region includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, Puerto Rico and the US Virgin Islands.

OFFICE OF RESEARCH WEBSITE FOR AMERICAN RECOVERY AND REINVESTMENT ACT INFORMATION:

The Office of Research has launched a new Web site to help inform UT Knoxville researchers about the effects of the American Recovery and Reinvestment Act. The site features a frequently updated list of the most pertinent funding opportunities sorted by due date. There are also links to various federal agency Recovery Act sites and background information documents. This site's main page includes a list of recent updates so users can easily see what is new since the last time they visited. http://research.utk.edu/recovery/

TITLE: SMALL BUSINESS INNOVATION RESEARCH (SBIR) PHASE I SOLICITATION

URL: http://es.epa.gov/ncer/rfa/2009/2009_sbir_phase1.html
Open Date: 03/19/2009 - Close Date: 05/20/2009
Summary: The Environmental Protection Agency (EPA) invites small business firms to submit research proposals under this Small Business Innovation Research (SBIR) Solicitation. The SBIR program is a phased process uniform throughout the Federal Government of soliciting proposals and awarding funding agreements for research (R) or research
and development (R&D) to meet stated agency needs or missions.
EPA is interested in advanced technologies that address GREEN BUILDINGS and EPA TECHNOLOGY NEEDS. The following topics are included in this solicitation: Green Building Materials and Systems, Innovation in Manufacturing, Nanotechnology, Greenhouse Gases, Drinking Water and Water Monitoring, Water Infrastructure, Air Pollution, Biofuels and Vehicle Emissions Reduction, Waste Management and Monitoring, and Homeland Security. The proposed research must directly pertain to EPA's environmental mission and must be responsive to EPA program interests included in the
topic descriptions in this solicitation.
Applicable Category(s): Grant/Fellowship Announcements
Follow NCER News and New Funding Opportunities on Twitter:
http://twitter.com/usepancer/

SOUTHERN SARE INVITES PROFESSIONAL DEVELOPMENT PRE-PROPOSALS

The Southern Region Sustainable Agriculture Research and Education (SARE) Professional Development Program is requesting pre□proposals for projects of one to two year(s) duration that provide training in sustainable agriculture for agricultural professionals and educators who serve farmers and other interested people in USDA's southern region.
Obtain the call for pre□proposals at http://www.southernsare.org. Submission deadline is June 5, 2009. Awards will be made in February 2010. There is no funding cap for projects. To fund a broad portfolio of projects, priority will be given to those in the range of $50,000 to $100,000. SARE is an inclusive program and encourages pre-proposals from land
grant and non-land grant universities, colleges, USDA agencies, community-based organizations, and non-governmental organizations. The Southern region includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, Puerto Rico and the US Virgin Islands.

More News Next Page

Return to Front Page

Advisory Committee on Biotechnology and 21st Century Agriculture (AC21).

USDA is looking for applicants for its
Advisory Committee on Biotechnology and 21st Century Agriculture (AC21). Here's the link to the notice in the federal register: http://edocket.access.gpo.gov/2009/pdf/E9-6884.pdf

NEW NIH RECOVERY ACT OPPORTUNITYSEEKS TO FUND HIGH IMPACT, LARGE-SCALE, ACCELERATED RESEARCH

U.S. Department of Health and Human Services
NATIONAL INSTITUTES OF HEALTH NIH News
NIH Office of the Director (OD) <http://www.nih.gov/icd/od/>
For Immediate Release: Monday, April 13, 2009
CONTACT: Megan Columbus, 301-435-0937, <e-mail: columbum@od.nih.gov>
NEW NIH RECOVERY ACT OPPORTUNITY SEEKS TO FUND HIGH IMPACT, LARGE-SCALE, ACCELERATED RESEARCH
Goal to Promote Growth and Investment in Biomedical R&D, Public Health and Health Care Delivery

The National Institutes of Health highlighted a new funding opportunity under the Recovery Act that will support approximately $200 million in large-scale research projects that have a high likelihood of enabling growth and investment in biomedical research and development, public health and health care delivery. The purpose of this new program, the Research and Research Infrastructure "Grand Opportunities" (GO), is to support high impact ideas that lend themselves to short-term funding and may lay the foundation for new fields of scientific inquiry.

"With this new program, we will support large biomedical and biobehavioral research endeavors that will benefit from a significant two-year jumpstart in funds and are ready for immediate implementation," said Acting NIH Director Raynard S. Kington, M.D., Ph.D. "The goals are to fund high impact research that will lead to growth and investment in these fields and stimulate the economy in the process."

In responding to this opportunity, grant applicants may propose to address either a specific research question or the creation of a unique infrastructure/resource designed to accelerate scientific progress in the future. The GO grants will support large-scale research projects that accelerate critical breakthroughs, early and applied research on cutting edgetechnologies, and new approaches to improve the synergy and interactions among multi and interdisciplinary research teams.

Each participating NIH Institute has indicated their priorities for the GO grants. An example of the type of project that could be funded under this program is the identification and validation of biomarkers in human genetics and biology that indicate the risk for disease or that could serve as a marker of disease progression and/or responsiveness to treatment. Validation of biomarkers could dramatically improve the detection, prevention, and treatment of disease. Another priority is research on information technology that will enable physicians to share radiological images across health care institutions, which could result in reduced health care costs, as well as improved accuracy for medical decision-making.

For more information, see Recovery Act Limited Competition for NIH Grants: Research and Research Infrastructure "Grand Opportunities" (RC2): http://grants.nih.gov/grants/guide/rfa-files/RFA-OD-09-004.html.
The National Institutes of Health (NIH) -- The Nation's Medical Research Agency -- includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. It is the primary federal agency for conducting and supporting basic, clinical and translational medical research, and it investigates the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit www.nih.gov.

The activities described in this release are being funded through the American Recovery and Reinvestment Act (ARRA). More information about NIH's ARRA grant funding opportunities can be found at http://grants.nih.gov/recovery>. To track the progress of HHS activities funded through the ARRA, visit www.hhs.gov/recovery. To track all federal funds provided through the ARRA, visit www.recovery.gov.

More News Next Page

Return to Front Page

Advanced Research Projects Agency – Energy (ARPA-E) News:

The Association of Public and Land-grant Universities (APLU) and the Association of AmericanUniversities (AAU) have been asked by top officials at the U.S. Department of Energy (DOE) and the White House Office of Science and Technology Policy (OSTP) to assist them in identifying qualified individuals willing to serve as program managers and assistant program managers in its new agency, ARPA-E. As you may recall, ARPA-E was created to support high-risk, high-payoff energy research along the lines of DARPA at the Defense Department.

DOE is seeking individuals for both immediate and longer-term positions within ARPA-E. The immediate positions would last 6-12 months. These would be temporary personnel with the knowledge and expertise to help DOE organize the new agency who would serve as temporary program managers and provide additional program support. Individuals accepted for these positions would begin work immediately or as soon as feasible. For the longer term, DOE is looking for individuals willing to serve a three-year term at the agency as program officers and assistant program officers. Undoubtedly, some of the immediate short-term positions will be converted to longer-term appointments. University faculty and staff interested in both the immediate and longer-term positions could join the new agency through an IPA (Intergovernmental Personnel Act Mobility <http://www.opm.gov/programs/ipa/> Program).

As you may know, the American Recovery and Reinvestment Act (ARRA) provided $400 million in funding for APRA-E and it received an additional $15 million in the FY2009 Omnibus Appropriations Act. ARPA-E was originally authorized through the America COMPETES Act (P.L. 110-69) in 2007, but received no funding in FY2007 or FY2008.

The Recovery Act funds made available to ARPA-E must be obligated within the next two years. Therefore, DOE needs to staff the agency quickly so that it can begin to fund qualified research proposals. We hope that the new APRA-E will become a valuable source of funding for the many talented researchers at our universities working on important energy research, just as DARPA has been for researchers in key defense areas.

Given the important mission of this new agency, it is vital that we use this opportunity to help ensure that the ARPA-E staff is of the highest caliber and understands our universities. We would therefore encourage you to consider nominating and/or encouraging qualified individuals from your campuses to apply for both the short-and longer-term ARPA-E appointments.

AAU has offered to help collect resumes for individuals that your institutions would like to nominate or recommend for these positions. Please send resumes/CVs and a brief cover note and/or letter of nomination to the attention of Karen Bath (Karen_Bath@aau.edu).

Should you have additional questions, please contact Jennifer Poulakidas at APLU (jpoulakidas@aplu.org, 202.478.6053) or Tobin Smith at AAU (toby_smith@aau.edu, 202.408.7500). Additional information from DOE concerning ARPA-E and the ARPA-E positions it needs to fill follows.

ARPA-E (DOE) Needs Assistance from America's Top Research Universities

Assistance Staffing Up the ARPA-E

One of President Obama's top priorities is to build the foundation for a clean energy economy by increasing investment in energy R&D. ARPA-E received a significant amount of Recovery Funding, and Secretary Chu is eager to quickly make an impact with this funding. In order to meet the Secretary's goal, ARPA-E needs to quickly staff up the organization with the nation's best and brightest . Part of DARPA's success is due to its world-class program managers, many of them from the country's leading research universities. ARPA-E, like DARPA, needs assistance from these institutions.

ARPA-E needs immediate short-term staff to help set up this unique agency. Additionally, ARPA-E is looking for long-term program managers to run the program. University faculty and staff can join ARPA-E though an IPA (Intergovernmental Personnel Act <http://www.opm.gov/programs/ipa/>).

Background

The mission of the Department of Energy ' s Advanced Research Projects Agency – Energy (ARPA-E) is to overcome the long-term and high-risk technological barriers in the development of transformational energy technologies. The ARPA-E will facilitate initiatives to enhance the economic security of the United States through the development of energy technologies that reduce energy imports, improve energy efficiency, and reduce energy-related emissions. Additionally, ARPA-E will to work to ensure that the United States maintains a technological lead in developing and deploying advanced energy technologies.

ARPA-E News Continued Next Page

Return to Front Page

American Recovery and Reinvestment Act (HR 1) (the Stimulus bill) signed into law by the President on February 17, 2009 provided $400 million to establish the Advanced Research Projects Agency – Energy (ARPA-E). This agency was chartered and authorized in 2007 in the America COMPETES Act (P.L. 110-69). However, because there was no appropriation for the new agency in FY07 and FY08, the agency was not established.

While DOE's normal spending authority does not place time limits, the Stimulus bill requires DOE to obligate all funding within two years. This funding time limit, along with the President's desire to quickly stimulate the economy yet ensure the funding is used effectively will be a large effort for DOE. This effort will be particularly difficult for ARPA-E funding, since this program is a new agency. In order to start spending the ARPA-E funding, DOE will have to set up a new program office, hire program staff, and explore the unique flexibilities provided by Congress.

ARPA-E Staffing Needs

- Immediate Positions - 6-12 month IPA (Start time - ASAP)
    - Program Manager
    - Program Support (Asst. Program Managers, or other positions)
- Long-term Positions -Initial three year term appointment (could be IPA) (Start time - End of Summer/Early Fall)
    - Program Managers
    - Asst. Program Managers

APRA-E Position Descriptions

ARPA-E Program Manager
A Program Manager (PM) executes the mainline function of ARPA-E. He or she is responsible for searching for and identifying technical opportunities with the potential for making breakthrough improvements in one or more of the ARPA-E mission areas. The PM must be able to state some quantifiable mission impact if the program is successful. Relevance to mission is not sufficient, the impact must be significant. The PM is then responsible for analyzing what is preventing this technology from reaching the market in a way that it reaches its full potential to have that mission impact. The PM develops a program plan to overcome the key technical risks, with a solid transition plan and matching intellectual property strategy. The plan also includes key milestones, metrics, schedule, and multi-year budget. The PM is responsible for presenting this fully formed program plan to the Director. The PM may also identify quick hit single efforts that do not require the sophisticated management of a full program. Once a program is approved, the PM is responsible for executing the approved acquisition strategy, getting contracting vehicles in place that embody the risk management strategy, the transition strategy, and the intellectual property strategy. The PM is an active manager of risk, in frequent contact with all performers. The PM is responsible for adding, adjusting, or canceling contracts as the program progresses. The PM is both empowered to accomplish the program goals he/she defined, as well as held accountable.

The PM is aided in his/her work by three types of people: Assistant PM, technical support contractor, administrative contractor. The PM is called upon to do so many aspects of program planning and execution that is not possible for one person to complete all this alone. The technical support contractor helps the PM identify opportunities, analyze their mission impact, identify technical risks, and develop program metrics and testing. The administrative contractor assists the PM in all the administrative aspects of the program, such as handling proposals, tracking responses, creating the internal ARPA-E process documents, and financial tracking.

ARPA-E Assistant Program Manager
The Assistant PM is also a Government employee with a technical background. The Assistant PM serves as the contracting officer's representative (COR) and must fulfill all the technical and administrative duties this role requires. By performing all the detailed duties of the COR, the Assistant PM offloads a significant burden from the PM, allowing the PM to function at the higher level of overall program strategy and execution. The Assistant PM may also visit the contractors on a more frequent basis, reporting back to the PM on contractor progress. The Assistant PM may also be tasked by the Program Manager with developing a testing plan for the program. Because the Assistant PM is not called upon to do the more all-encompassing work of creating and managing a multi-dimensional program plan, the Assistant PM can be of a lower experience level, although he/she must still be technically deep.

Immediate Program Support (Asst. Program Managers, or other positions)
Additionally, ARPA-E is in need of program support to assist with the creation of this agency. Like program mangers, applicants for these positions may be technically deep yet be more limited in experience. Non-technical applicants may also be considered. Applicants will be exposed to a wide variety of aspects to this new agency and DOE.

EXTENSION NEWS

Return to Front Page

Rain Water Harvesting and Rain Garden Train-the-Trainer Workshop

UPCOMING EXTENSION WEBINAR JUNE 9: 8;30AM - 12;30PM*
By participating in this web-workshop agents will:
* Learn from agents with years of experience in installing, maintaining and educating others about stormwater, cisterns and raingardens.
* Improve your knowledge of water conservation, urban pollution causes and solutions.
* Learn the benefits and costs associated with residential water harvesting and rain gardens.
* Learn how to site, size, install, and maintain residential sized rain barrels, cisterns, and rain gardens.
* Invite your community to participate in the web-workshop the morning of June 9 (and lead an afternoon activity designed to reinforce concepts learned that morning/)
* Get answers to you questions!

Nonpoint source pollution is the leading cause of stream impairment in the United States. Urban and Suburban areas are frequently cited as sources of excess nutrients and pesticides due in part to dense populations and the intensive management of landscapes. Correspondingly, the recent drought has
highlighted the importance of water conservation in urban and suburban areas.
The typical residential home uses about half of its water consumption during the growing season on landscape irrigation. This program proposes to increase knowledge and accelerate the adoption of simple, on-the-ground practices that may be implemented in urban and suburban landscapes that improve the quality of stormwater runoff and promote water conservation. The program will be led
by stormwater management experts from North Carolina State University And University of Georgia Cooperative Extension.
Target Audience: County Extension Agents, Master Gardeners, Stormwater and Water Conservation educators
Time: Tuesday, June 9, 2009, Classroom training 8:30-12:30 followed by field activities and tours
Location, Live broadcast from 348 Zell Miller Student Learning Center, The University of Georgia, Athens, GA with webcasting via WebCT to multiple remote locations
Overview of Topics covered
Watersheds and Water Quality: The need for residential cisterns and raingardens.
Rain Water Harvesting Systems: Siting considerations, Sizing a system to meet water needs, Installation and construction examples, Maintenance
Considerations - Rain Gardens: Siting and sizing considerations, Installation, soil considerations, and construction examples, Plants, mulch, and maintenance
How you can participate
By attending the Athens workshop as a participant, by remotely participating online, or by offering the workshop to your local community via webcast. To participate as a remote location, all you will need is internet access and the capability to coordinate the local arrangements. The cost for attending the
Athens workshop will be $25. Remote locations can subscribe and participate free of charge and are welcome to charge their own local fees.
For more information or to register for the workshop, please see http://www.areg.caes.uga.edu/
For questions, contact Frank Henning, fhenning@uga.eud or Mitch Woodward mwoodward@ncsu.edu
Dr. Mark Risse, P.E., The University of Georgia, Athens, Georgia 30602, 706-542-9067

New Water Law Reading Room

Water is at the heart of agriculture. Without water, crops and livestock would not be able to survive. Water used in agricultural production can come from surface waters, such as rivers, lakes, streams, and ponds, or from groundwater, such as an aquifer. The allocation of this important resource is left up to each state, with very little federal intervention. Each state has its own regulatory system to allocate both the surface waters and the groundwater in the state.
Many important legal issues are presented by the use of water in agriculture. The new Water Law Reading Room http://nationalaglawcenter.org/readingrooms/waterlaw/ deals with issues such as allocation, irrigation, and other problems common to agriculture's use of water. The room contains specific information related to the interplay between water and agriculture and includes a comprehensive case law index, Center publications, an overview article, a federal statute compilation, and a compilation of each state's water laws and regulations. The room also contains valuable links to federal agencies, a listing of states' water offices, water organizations, and other resources.
The Center thanks Professor Jesse Richardson, Associate Professor of Urban Affairs and Planning and Urban Affairs and Planning Coordinator at the Virginia Tech University, for his careful review of drafts of the reading room and for his insights and comments that insured the reading room would be the best it could be.

Continued Next Page

Return to Front Page

Southern SARE Research and Education Pre-Proposals and Grant Program Changes

Southern SARE's Research and Education Grants Program introduced changes this year to help applicants focus on whole systems research.

Starting with the current Research and Education Call For Pre-Proposals, applicants must propose research that fits one of three grant categories:

• Production research—Focused on actual production methods, this kind of research has made up the bulk of SARE's project portfolio in the past and has developed techniques that have become common tools for farmers.

• Postharvest/food systems research—These projects examine what happens past the farm gate such as in the markets, distribution systems and policy making. This category can serve as a funding path for social science researchers to also make a difference in our farm and food systems.

• A combination of production and postharvest/food systems research—

The ultimate in systems research would connect what goes on in the ground with everything that happens after a crop is harvested, including adding value, marketing, infrastructure for processing and transportation, as well as policy making.

Research and Education grants award up to $300,000 for up to 3 years of project activities.

Applications are due June 1. Obtain CFP at http://www.southernsare.uga.edu/callpage.htm

For researchers not yet prepared to submit a SSARE systems research pre-proposal, SSARE will release two additional Research and Education (R&E) requests for proposals with submissions due later in the year:

R&E Planning Grants and R&E Preliminary Research Grants.

• Research and Education Planning Grants bring together interdisciplinary, multi-institutional teams to define a project scope, establish goals and objectives, perform literature reviews across disciplines and do other tasks necessary for developing a systems research preproposal. These grants will award up to $20,000 for one year's planning activities. Pre-proposals will be not required. Details at http://www.southernsare.uga.edu/callpage.htm

• Research and Education Preliminary Grants to conduct necessary research that would feed into the interdisciplinary team's objectives.

It is likely that such a missing link would be discovered during the literature review of a Research and Education Planning Project. These grants will award up to $50,000 for up to 2 years of project activities. Pre-proposals will be not required. Details at http://www.southernsare.uga.edu/callpage.htm

This announcement serves to alert potential applicants of the changes and additional grant opportunities. Specific details of each grant will be in the respective calls for proposals.

To find out how these changes fit into Southern SARE's overall funding strategy for the future see the document Bringing Systems Research Into Focus at http://www.southernsare.uga.edu/pdf_files/REchanges.pdf

REMINDERS:

Southern SARE invites Professional Development Pre-proposals

The Southern Region Sustainable Agriculture Research and Education (SARE) Professional Development Program is requesting pre-proposals for projects of one to two year(s) duration that provide training in sustainable agriculture for agricultural professionals and educators who serve farmers and other interested people in USDA's southern region. Obtain the call for pre□proposals at http://www.southernsare.org. Submission deadline is June 5, 2009. Awards will be made in February 2010. There is no funding cap for projects. To fund a broad portfolio of projects, priority will be given to those in the range of $50,000 to $100,000.

SARE is an inclusive program and encourages pre□proposals from land grant and non-land grant universities, colleges, USDA agencies, community-based organizations, and non-governmental organizations. The Southern region includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, Puerto Rico and the US Virgin Islands.

Return to Front Page

CONTINUED FROM FRONT PAGE…

From the Department Head:

We also have several students scheduled to complete master's degrees this spring or summer, and we congratulate these students as well.

Last week we held our annual Biosystems Engineering and Soil Science Awards Banquet. The BESS faculty and staff were joined by several departmental retirees, CASNR Dean Beyl and AgResearch Dean Brown, and our student award recipients with their families. Recipients of CASNR awards were recognized, as were the departmental scholarship recipients. A number of departmental awards were presented (***see photos here***), and the 2009 Distinguished Alumni Award presented to Tony Williams. We congratulate all these award winners, and I thank the faculty and staff for their hard work to make this event a success.

---Eric

OTHERS RECOGNIZED AT THE BESS AWARDS BANQUET WERE:

COE Engineer's Day Winners – ASABE

UT Soil Judging Team – Soil Vols
Stephen Holland, James Hartsig, Brian Lester, Kinder Tuckwiller, Kyley Dickson, Brenton Worley. Coached by Ryan Blair and Dr. Tom Ammons

EURēCA Award Winners
College of Engineering Division:
Crystal Kelly, Will Rutemeyer, Ken Swinson. Sponsor – Dr. John Buchanan. *"Optimization Protocol for Nitrogen Removal from Domestic Wastewater."*
John Kruckeberg, Abdoulaye Samba, Chase Shaver, Mitch Groothius, William Nichols. Sponsor – Dr. Paul Ayers. *"Automated Foldable ROPS."*
College of Agricultural Sciences and Natural Resources Division:
Alex McLemore and Adam Duncan. Sponsor – Dr. Paul Ayers. *"Coal Deposits Located in the Mouth of the Clinch River."*

Outstanding Senior – ASA/CSSA/SSSA
James Hartsig

Service Awards – 10 Years
Forbes Walker
Margaret Taylor

CASNR Awards to BESS Students
Erick Foster, BsE Outstanding Freshman
Brett Denton, BsE Outstanding Sophomore
Becca Messer, BsE Outstanding Junior
John Kruckeberg, BsE Outstanding Senior
Catherine (Caycee) Ellis, ESS Outstanding Freshman
Joseph Owle, ESS Outstanding Sophomore
Stephen Holland, ESS Outstanding Junior
Leah Soro, ESS Outstanding Senior
Rebecca Messer, CASNR Outstanding Junior
John Kruckeberg, CASNR Outstanding Senior

Scholarship Recipients:

Charles Edmunds	Joseph Freeman	Jonathan Reagan
William Nichols	Katherine Peay	Timothy Stanfield
Rebecca Messer	Erick Foster	Andrew Carrier
Heath Duncan	John Petty	Matthew Jones
Alex McLemore	Chanci King	Bryan Dickey
Christopher Drinnon	Ronald Massengill	Alexandria DeSantis
Lori Gibson	Brianna Cooper	Stephen Holland
Brett Denton	Leah Soro	
Timothy Vaughn	Eric Stout	
Andrew Bohan	James Bickel	
Emily Curtis Wrinn	Jessica Ottinger	

UTIA NEWS

No News This Issue